

them (fig. B). It will be noticed that the new species has "scaphoid spicules" almost as well marked as those of *X. anceps*, but these are wanting in *X. setacea*. For the present I content myself with calling attention to this fact, which must, obviously, be borne in mind when the questions are asked, Are scaphoid spicules of generic value? and Is the genus *Xiphigorgia* a natural one?

*Hab.* St. Thomas, West Indies. Coll. B.M.

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XXII.—On the Geographical Distribution of the Genus *Diaptomus*. By MM. J. DE GUERNE and J. RICHARD\*.

RECENT works relating to lacustrine faunas have called attention to the freshwater Calanidæ. These Copepods, and especially the *Diaptomi*, are much more numerous in species and much more widely distributed than is generally supposed.

If we except some forms recently described † most of the common types have been confounded and indicated under the name of *Diaptomus castor*. From this it results that the geographical distribution of these species cannot be established in a complete fashion. However, the numerous data which we have been able to bring together and the kind assistance of several zoologists ‡ enable us, leaving out of consideration all doubtful observations, to trace an outline of the distribution of the genus *Diaptomus* on the surface of the globe.

The European species that we admit §, not taking into account purely nominal or insufficiently described forms, are fifteen in number. Among them six species are known only from a single locality in the extreme north, the centre, or the south of Europe (Lapland, Germany, Russia, Spain). Three others appear to be peculiar to the mountainous regions of Central Europe, but have never been met with together.

\* Translated from the 'Comptes Rendus,' July 2, 1888, pp. 47-50.

† See in the 'Bulletin de la Société Zoologique de France,' vol. xiii. (February and June 1888), the descriptions of eight new *Diaptomi*, by MM. Richard, Lilljeborg, Poppe, and Richard and de Guerne.

‡ In this connexion we have to thank particularly Profs. Lilljeborg, G. O. Sars, and Wierzejsky, and M. Poppe, who have been kind enough to furnish us with little-known types or with descriptions of unpublished species.

§ See our "Révision des Calanides d'eau douce," which will shortly appear in vol. i. of the 'Mémoires' of the Zoological Society of France.

The remainder—that is to say, *D. castor*, Jurine, *D. cæruleus*, O. F. Müll., *D. denticornis*, Wierz., *D. gracilis*, G. O. Sars, *D. graciloides*, Lillj., and *D. laticeps*, G. O. Sars—are more or less diffused in the north, east, and west of Europe.

In France and in the British Isles we only know *D. castor* and *D. cæruleus*, which are also noted in Sweden and Germany. *D. cæruleus* lives in numerous troops in clear waters of a certain extent; *D. castor*, on the contrary, is met with in small pools or in the littoral region of lakes. *D. gracilis* occurs throughout northern and central Europe; it is the most widely diffused of the lacustrine forms; an allied species, *D. graciloides*, is met with throughout Sweden and into Russian Lapland (Lilljeborg). *D. denticornis* is known in Scandinavia, in Switzerland, and in the Tatra mountains. *D. laticeps*, indicated in Finland\* and in Norway, has been recognized by S. A. Poppe in the Salzigersee, near Halle on the Saale.

In Asia, at points very distant from each other (Behring Island, Turkestan, Shanghai, Ceylon, and Jerusalem), we know *six* species of *Diaptomus*. It is certain that future researches will lead to the discovery in this country of a great number of other forms, and this is the more probable because, except as regards Turkestan, the types at present noted have been met with at a short distance from the coasts.

Scarcely any investigations have been made in Africa; and the only *two Diaptomi* brought from that continent are new. Both come from Algeria. One was collected near Algiers by M. Letourneux; the other, discovered in the neighbourhood of Oran by M. Raphael Blanchard, has also been found by him at Temacin, to the south of Tougourt.

In America the *Diaptomi* have been the object of only a few researches in the United States. Among many ill-defined species we may distinguish *five*, which certainly do not represent the whole richness of the genus in that country †.

South America has hitherto furnished only one well-recognizable *Diaptomus*; another species, brought from Patagonia by Charles Darwin, indicates the extension of the genus into the southern regions.

Moreover *four* species noted in Oceania lead us to suppose that the genus is largely represented in the southern hemi-

\* It is a mistake, in our opinion, for Dr. O. Nordqvist to unite *D. laticeps* with *D. gracilis* ("Die Calaniden Finlands," in Bidr. till Känned. af Finl. Nat. och Folk, part 47, p. 7, note 3).

† Under the name of *castor* Bucholz has indicated a *Diaptomus* collected in East Greenland in February 1870, the determination of which appears doubtful to us.

sphere. Prof. G. O. Sars has obtained in Christiania a still undescribed *Diaptomus* by cultivating muds brought dry from Australia.

This fact possesses much interest as regards the geographical distribution of the genus. It indicates a ready means of dissemination and enables us to explain the presence of a *Diaptomus* in considerable quantities in the neighbourhood of Oran (*vide suprà*), in chotts which remain dry during the greater part of the year.

In connexion with this we may also call attention to the fact that certain *Diaptomi* appear to adapt themselves easily to waters of very different degrees of saltness. Dr. Raphael Blanchard has collected the species already mentioned in water which held in solution as much as 29·15 grains of chlorides per litre on April 1, 1888. At the same time this Copepod occurred in water containing not more than 14·04 grains of chlorides per litre. Analogous facts have been previously noted with regard to *D. salinus* and *D. laticeps*. This latter species lives as well in the fresh waters of Scandinavia as in the Salzigersee, near Halle, the water of which contains 0·15 per cent. of salts.

Thus, the genus *Diaptomus* may be regarded as cosmopolite. In all probability future researches will lead to the discovery of new species in different parts of the globe, and will enable us to ascertain a much more extended geographical distribution for the described forms.

XXIII.—*Critical Studies upon some Odontoceti of the Genera Tursiops, Orca, and Lagenorhynchus.* By M. CHR. LÜTKEN\*.

I.

ABOUT twenty years ago Prof. Steenstrup acquired at Trieste the skin and skeleton of a small Dolphin captured in the Adriatic. On the amalgamation of our natural-history museums these two specimens passed into the Cetological collection of the University, and were mounted there, in 1865 and 1866, under the name of *Delphinus parvimanus*. In

\* Translated from the 'Kongelige Danske Videnskabernes Selskabs Skrifter, naturvidenskabelig og matematisk Afhandlingar,' ser. 6, vol. iv. pp. 391-397. The Danish memoir of which this is an Abstract occupies 54 pages (pp. 337-390), and is illustrated with two plates and a considerable number of woodcuts.